

BOUNDEDNESS FOR THE MULTI-COMMUTATORS OF CALDERÓN-ZYGMUND OPERATORS

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Abstract. In this paper, the authors study the multi-commutators $\mathcal{T}^{A_1, \dots, A_k}$ generalized by the Calderón-Zygmund operator T and the $(m_i + 1)$ -th remainders of Taylor series of the functions A_i whose m_i -th derivatives belong to BMO spaces for $m_i \geq 0$ and $i = 1, 2, \dots, k$. The boundedness from the weighted central Morrey space $B_p(w)$ to the weighted central BMO space $CMO(w)$ for these multi-commutators was derived. As corollary, the L^p -boundedness for the multi-commutators has been obtained.

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